

WHAT IS CLAIMED IS:

1. A method of disposing of photographic silver halide processing solutions including developer solution, bleach solution and at least one silver bearing solution comprising a) combining the developer and bleach solutions to oxidize the developing agent in the developer and form a developer/bleach waste solution, b) treating the silver bearing solution(s) to reduce the silver ion level and form a low silver waste solution; and c) contacting the developer/bleach waste solution and the low silver waste solution with an absorbent material to form an apparently dry waste material having a leachable silver ion level below 5 ppm.

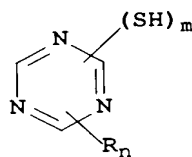
2. The method of claim 1 wherein the silver bearing solutions are combined before being treated to reduce silver ion level.

3. The method of claim 1 wherein the developer/bleach waste solution is contacted with a first absorbent material and the low silver waste solution is contacted with a second absorbent material resulting in two separate apparently dry waste materials.

4. The method of claim 1 wherein the developer/bleach waste solution and the low silver waste solution are contacted with the same absorbent material resulting in one apparently dry waste material.

5. The method of claim 1 wherein the silver bearing solutions are treated to reduce silver ion content by contacting the solutions with a precipitating agent which will precipitate silver salts.

6. The method of claim 5 wherein the precipitating agent is a mercapto-s-triazine compound represented by Formula I



Formula I

wherein:

R is hydrogen, -NH₄, -OH, alkyl having 1 to 8 carbon atoms, alkoxy having 1-8 carbon atoms, phenyl, cyclohexyl, oxcazinly, phenoxy, -NR'₂ or -SR'';

R' is hydrogen, alkyl having 1 to 8 carbon atoms, phenyl, cyclohexyl, naphthyl or benzyl;

wnd wherein:

R'' is alkyl having 1 to 8 carbon atoms, phenyl, cyclohexyl, naphthyl or benzyl; m is an integer from 1 to 3; and n is 0 or an integer from 1 to 2.

7. The method of claim 6 wherein the precipitating agent is trimercapto-s-triaizine.

8. The method of claim 1 wherein the silver bearing solutions are treated to reduce silver ion content by converting the silver ion into silver metal.

9. The method of claim 8 wherein the method used to convert the silver ion into silver metal is electrolytic reduction or the use of a galvanic cell.

10. The method of claim 1 wherein the silver bearing solutions are treated to reduce silver ion content by a combination of contacting the solutions with a precipitating agent which will precipitate silver salts and converting the silver ion into silver metal.

11. The method of claim 1 wherein the absorbent material absorbs at least 20 mls/gm of distilled water using the Paint Filter test.

12. The method of claim 1 wherein the absorbent material absorbs at least 100 mls/gm of distilled water using the Paint Filter test.

13. The method of claim 1 wherein the absorbent material comprises a polysaccharide gel or protein gel.

14. The method of claim 13 wherein the absorbent material comprises gelatin.

15. The method of claim 14 wherein the gelatin is chemically crosslinked and wherein the amount of effective moles of crosslinker utilized is about 2 to 200 μ moles/gm of gelatin.

16. The method of claim 15 wherein the absorbent further comprises an anionic polyelectrolyte.

17. The method of claim 16 wherein at least 25 % of the monomers comprising the polyelectrolyte contain a carboxylic acid group.

18. The method of claim 16 wherein the anionic polyelectrolyte is a polyacrylic acid.

19. The method of claim 16 wherein the anionic polyelectrolyte is sodium poly(acrylamido-2-methyl propane sulfonate).

20. The method of claim 16 wherein the anionic polyelectrolyte is present in the amount of 10 to 30 % of the absorbent.

21. The method of claim 14 wherein the gelatin has a nominal viscosity of greater than 10cp.

22. The method of claim 16 wherein the anionic polyelectrolyte comprises at least 10 mole % of a cationic monomer which has a crosslinkable functionality.

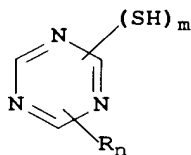
23. The method of claim 11 wherein the absorbent material further comprises a polypropylene or polyester material.

24. The method of claim 14 wherein the absorbent material further comprises a polypropylene or polyester material.

25. The method of claim 1 wherein the treated silver bearing solution is separated into low silver waste solution and insoluble silver prior to the solution coming into contact with the absorbent.

26. A method of disposing of photographic silver halide processing solutions including developer solution, bleach solution and at least one silver bearing solution comprising a) combining the developer and bleach solutions to oxidize the developing agent in the developer and form a developer/bleach waste solution, b) treating the silver bearing solution(s) by contacting the solutions with a precipitating agent which will precipitate silver salts to reduce the silver ion level and form a low silver waste solution; and c) contacting the developer/bleach waste solution and the low silver waste solution with an absorbent material comprising gelatin to form an apparently dry waste material having a leachable silver ion level below 5 ppm.

27. The method of claim 26 wherein the precipitating agent is a mercapto-s-triazine compound represented by Formula I



Formula I

wherein:

R is hydrogen, -NH₄, -OH, alkyl having 1 to 8 carbon atoms, alkoxy having 1-8 carbon atoms, phenyl, cyclohexyl, oxazolinyl, phenoxy, -NR'₂ or -SR'';

R' is hydrogen, alkyl having 1 to 8 carbon atoms, phenyl, cyclohexyl, naphthyl or benzyl;

and wherein:

R'' is alkyl having 1 to 8 carbon atoms, phenyl, cyclohexyl, naphthyl or benzyl; m is an integer from 1 to 3; and n is 0 or an integer from 1 to 2.

28. The method of claim 26 wherein the gelatin is chemically crosslinked and wherein the amount of effective moles of crosslinker utilized is about 2 to 200 μ moles/gm of gelatin.